

SB
AMI

BE AN AMATEUR GARDENER



PUBLIC ARCHIVES
NOVA SCOTIA

SB
AMI

THE
Amateur and Market Gardener's
COMPANION.

CONTAINING

AND COMPLETE DIRECTIONS FOR THE CULTIVATION OF
VARIOUS KINDS OF GARDEN VEGETABLES USUALLY
GROWN IN NOVA SCOTIA AND THE DOMINION
OF CANADA GENERALLY.

BY AN AMATEUR GARDENER.



HALIFAX, N. S.:
Published by STEPHEN T. HALL,
1874.

Entered according to Act of the Parliament of Canada, in the year One Thousand
Eight Hundred and Seventy-four, by STEPHEN T. HALL, in the office of the
Minister of Agriculture.

INTRODU

VEGETA

Si

Sc

D

Pr

. M

H

Se

Tr

W

In

VEGETA

As

Ar

Ba

Ba

Be

Be

Be

Be

Br

INDEX.

	PAGE
INTRODUCTION.....	9
VEGETABLE GARDENING—	
Situation.....	11
Soils.....	11
Drainage.....	13
Preparation of the land.....	14
Manures.....	15
Hot-beds.....	17
Seeds.....	20
Transplanting.....	22
Watering.....	24
Insects.....	25
VEGETABLES, THEIR VARIETIES—	
Asparagus.....	27
Artichoke.....	30
Balm.....	31
Basil.....	31
Bean.....	31
Beet.....	38
Borecole—Kale.....	38
Brocoli.....	39

	PA	
Brussels Sprouts.....	6	Po
Cabbage.....	6	Pu
Cauliflower.....	6	Ra
Carrot.....	6	Rh
Chervil.....	6	Sag
Celery.....	6	Sal
Chicory.....	6	Sha
Chives.....	6	Sp
Corn.....	6	Squ
Cress.....	6	Sun
Cucumber.....	6	Sw
Egg Plant.....	6	Thy
Endive.....	6	Ton
Horse-radish.....	6	Tur
Kohlrabi.....	6	CALL F
Leek.....	6	Gar
Lettuce.....	6	
Mangle-Wurzel.....	6	
Martynia.....	6	CONCLUD
Melon.....	6	
Mint.....	6	
Mushroom.....	6	
Nasturtium.....	6	
Okra.....	6	
Onion.....	6	
Orache.....	6	
Parsley.....	7	
Parsnip.....	7	
Pea.....	7	
Pepper.....	7	

vii

PAGE		PAGE
73	Potato.....	73
74	Pumpkin.....	74
74	Radish.....	74
76	Rhubarb.....	76
76	Sage.....	76
77	Salsify.....	77
77	Shallots.....	77
78	Spinach.....	78
78	Squash.....	78
80	Summer Savory.....	80
81	Sweet Marjoram.....	81
81	Thyme.....	81
81	Tomato.....	81
82	Turnip.....	82
	SMALL FRUITS—	
83	Garden Strawberry.....	83
90	“ Raspberry.....	90
94	“ Blackberry.....	94
96	INCLUDING REMARKS.....	96

THE p
a want
namely
instruct
price.
obtain
the pri
aim of
ness, a
plish t
popula
for ple
the po
shilling
or a ba

Alth
climate
of the
Provin



INTRODUCTION.

THE publication of this little work is intended to supply a want that has long been seriously felt in this Province, namely, a book combining all necessary information and instruction on vegetable gardening, with cheapness of price. It is quite easy for those who can afford it, to obtain excellent books on the subject; but, in general, the price is too high for the poor man's pocket. The aim of this work is *completeness, conciseness, cheapness*, and the author hopes that this endeavor to accomplish that end will be appreciated by all classes of the population, from the gentleman of wealth who cultivates, for pleasure, his well-laid-out kitchen garden, down to the poorest of our market people, who earns his few shillings weekly by the sale of a few bunches of radishes or a basket of lettuce.

Although the directions given are intended for the climate of Nova Scotia, they are applicable to all parts of the Dominion, especially the upper counties of the Province of Ontario.



V

IN ch
had
sho
aving
t shoul
n prod
ortance
orth w
ase of
njured
owing
elt of
ounda
should
he late

The



VEGETABLE GARDENING.

SITUATION.

IN choosing a spot for a garden, if a choice can be had, a piece of ground as nearly level as possible should be selected; if this cannot be had, a spot having a slope towards the South is the next best, and it should have as much shelter on the North as possible. In producing *early* crops shelter is of the greatest importance, for if young plants be exposed to the chilly north winds in early spring, they will be either, in the case of tender plants, entirely ruined, or be so much injured as almost to defeat the object aimed at in early sowing or planting. Either a high board fence, or a belt of fir or spruce trees should constitute the northern boundary. All the earliest and most tender plants should be grown on the north side of the garden, and the later vegetables on the south side.

SOILS.

The most valuable soil for a vegetable garden is a

dark, heavy, but not clayey, loam. That which is composed in part of decomposing oyster, clam, mussel, or other shells is best. Of course such soil can be had only near the sea shore, and seldom extends a half a mile from it. Another good soil is somewhat lighter in color, a rich, sandy loam, not so heavy nor usually so deep as the first; but for certain vegetables, such as melons, cucumbers, and tomatoes it is preferable. There is a great deal of this soil in Halifax County, particularly east of Halifax, and in Hants, Kings, Annapolis, Antigonish, and Lunenburg. All along the south base of the North Mountain in Kings and Annapolis this soil is found in perfection. Then there is the sandy soil of Aylesford, in the County of Kings; this is a very light loam, not very deep, generally resting on a subsoil of pure sand. This variety is well adapted for some kinds of grain, for tomatoes, cucumbers, squash and melons. It is particularly valuable for early radishes; but for celery, cabbages or cauliflowers it is of little value.

In some counties in this Province there is a clayey loam, from 8 to 12 inches deep, overlying a stiff brick clay, very close and cold; this soil should be avoided, as it is almost impossible to raise *early* vegetables on it. For celery it is well adapted, as a cold soil in a shady situation is the most congenial to this plant. If a selection can be made, for general crops choose a rather dark colored loam, a little sandy, not less than a foot deep,

and if the subsoil be a very sandy loam through which the water will drain freely, so much the better. On such a spot, with good management and intelligent cultivation, abundant crops, both early and late, can be raised. A heavy loam is preferable to a very light one because it is easier to make such portion of it, as may be necessary for certain purposes, light and rich, than to make a light soil heavy and at the same time secure the warmth necessary for early crops. It should be borne in mind that, although poor soils may be temporarily improved to a certain extent by cultivation and the application of manure, if the soil be not naturally good, luxuriant crops cannot be expected.

DRAINAGE.

This is a very important operation in gardening; thorough drainage is as necessary to successful cultivation as the application of manure, and indeed more so; a wet piece of land may be worked year after year and even be heavily manured, and, in spite of all the care and attention, the crops raised will prove unremunerative. *It is merely a waste of money and labor to attempt to raise anything early on land in such condition; a few dollars invested in drain-tiles, and a few days, or perhaps hours, labor in ditching would materially alter the productiveness of the spot, and it would, probably, pay for the expenditure in the increased quantity and the quality of the crops, the first season.*

Where there is sufficient stone on the land, French drains may be made ; these are sometimes very effectual, but, in my opinion, earthen tiles make the best drain. Where they are used, care must be taken to cover the top of the drain with shavings, chips or sods before filling in, to prevent the soil from washing in and filling up the drain.

PREPARATION OF THE LAND.

If the garden is to be laid out on sod land, operations should begin in October. If the land is low and requires drainage, this should first be attended to, after which a layer of two or three inches of horse manure should be put on it, and then the sod should be ploughed under, or turned over with a spade, which is a more expensive and laborious method, but, I think, more thorough. If the ground be ploughed it should be harrowed immediately after with the back of the harrow, which will fill up the interstices and help to rot the sods before the grass can come up between them in the following spring. As soon as the land is dry enough in the spring, which will be the earlier the better the drainage, it should be cross-ploughed and harrowed, and then receive a good heavy covering of manure,—no danger of getting too much,—this must be ploughed or spaded in, and then, after a good harrowing or raking, the ground is fit for the seed.

..

If operations are to be commenced on an old garden, or a piece of land that has been for some time under cultivation, plough or spade it up in the autumn, then spread over it a thin coating of fresh slaked lime and work that well into the soil. In the spring work the ground over, applying the usual quantity of manure. See that the soil, particularly the surface of it, is well pulverized and handsomely finished with the rake before sowing or planting. The ground should be laid out in beds about three and one-half feet wide.

MANURES.

This is a subject on which very few gardeners in Nova Scotia are thoroughly posted, if we may judge by their method of cultivation. There is almost as much necessity for a rotation of manures as for rotation of crops. The great majority of our gardeners overlook this fact, and go on from year to year manuring with stable manure, and never think of changing. This system is sure to breed insects; gardens cultivated in this manner for three or four years in succession, usually become so infested with grubs, slugs, snails, stone-bugs, and numerous other bugs, that constant watching and care is necessary in order to preserve young plants from destruction. I had just such a spot to cultivate the past summer, and was so pestered with insects that I was almost discouraged. I do not intend to be troubled

much with them next season if good brown lime and bone dust can be obtained. All rich loams require an occasional dressing of lime and manuring with bone dust. Lime kills insects, and I have found that they will rarely visit land manured with bone dust or superphosphate of lime.

Plants are subject to diseases of various kinds if grown year after year in land manured with but one kind of fertilizer. Cauliflowers, for instance, cannot be successfully cultivated two years in succession on land manured with stable manure; they will grow in new land enriched with it, and do well the first season; but the second season, if the land be not limed, or manured with bone dust, cauliflowers will not be a successful crop, they will be sure to be affected, more or less, with club root. In soils that are largely composed of decomposed shells they will do well for a number of years with very little manure of any kind, providing they are not kept thirsty.

Our gardeners do not manure heavily enough to raise such crops as are raised in market gardens in the neighborhood of London or New York. The gardeners there use from fifty to one hundred tons of stable manure, or a ton of bone dust per acre, *and find it pays*. In applying bone dust to small gardens, one pound per square yard is the proper quantity. A mixture of one part bone dust to twenty parts of old stable manure is an excellent fertilizer for general crops.

Peruvian Guano is, perhaps, the best concentrated manure for general purposes, but it is rather expensive. From one thousand to fifteen hundred pounds are required per acre, or from one-half to three-quarter pound per square yard.

HOT-BEDS.

The most convenient size for a hot-bed is either 3 x 6, 6 x 6, or 6 x 9 feet. For a very small garden where a few melon or cucumber plants only are wanted early, the smallest size will answer; but the largest size, 6 x 9 feet, is more generally necessary, and in some gardens where there is now no hot-bed at all, two, or even three, of the largest size ought to be had. They are not so generally used in this Province as they ought to be.

A 6 x 9 bed should have three sashes, each three feet in width, made of $1\frac{1}{2}$ inch pine. The frame should be made movable, and the material should be $1\frac{1}{2}$ or 2 inch plank, well seasoned; the planks should be tongued and grooved, the front, or lower part, 18 inches high, and the back about 26 inches, which will give sufficient slant to throw off the rain. The ends of the frame should be $1\frac{1}{2}$ inches higher than the front or back, so as to cover the edge of the sash and prevent the cold air from penetrating. The sashes should fit as tightly as possible to make them, without interfering with their sliding easily. A cheaper kind of hot-bed frame may be made, and be

quite efficient for general use, but as it is not nearly so durable, it is, perhaps, the dearest in the "long run." This is made of rough inch-boards, battened over the cracks or joints. Over the top, from front to back, strips may be nailed wide enough for the edges of the sashes, where they meet, to rest on. Such frames may be built against a north fence, and the sashes can be lifted off altogether, or raised up a few inches to admit air, by placing a support under the lower side.

When the frame is placed in its proper position on the ground, the earth inside should be dug to the depth of fifteen inches and thrown out, forming a bank around the outside, after which it is ready to be filled; this should be done in the following manner: horse manure, fresh from the stables, should be got, then, if obtainable, about half as much old leaves from the woods, these should be well mixed in successive layers, and formed into a heap large enough to generate fermentation in the coldest weather—for the bed should be prepared very early in the season if early vegetables are required. The manure must not be spread out and allowed to freeze or the fermentation will be delayed. In about three or four days after the heap is made, fermentation will take place; this will be indicated by the steam arising from the heap; it should then be spread out and again formed into a pile as before, when, in two or three days a second fermentation will occur. It is then ready to be placed in the pit: this should be done with a fork

of course ; it should then be trodden down evenly and solidly to the depth of two feet. The sashes must then be put on and kept closed until the manure again ferments, the thermometer, if at that time plunged in it, will indicate 100 degrees ; the sashes should then be raised and the steam allowed to escape. When the violent heat has somewhat subsided and the thermometer indicates 90 degrees, the soil should be placed on to the depth of six inches. The soil should be composed of two parts good garden mould and one part of old, well-rotted stable manure, well worked together and spread evenly over the surface of the manure. The seed should not be put in until at least two days have elapsed after finishing the bed. Tomatoes, egg plant, and peppers, cauliflowers, early cabbages and lettuce, squash, cucumbers, and melons should all be started in the hot-bed.

When the seed are sown or planted, they should be covered with a very light mould—a mixture of leaf mould and sand is best—then pat the mould lightly down with the back of a spade. Care should be taken that the soil be not allowed to get dry. Water it with water that has had the “chill” taken off, but not warm. Use a very fine-rose watering pot. During fine weather always raise the sashes in the day time to give air.

Hot-beds require considerable attention, if they do not get it they will not prove a success by any means, whereas if they are properly attended to they are very profitable, and for market gardeners who wish to make money by the business they are indispensable.

SEEDS.

Freshness and purity of seed are of very great importance to the gardener. I believe our dealers in the article are generally honest and can be relied on. Sometimes they may be deceived by the parties from whom they import or by whom they are supplied, occasionally also mistakes may be made; but, in general there is little or no risk in buying seeds in Halifax. Some seeds do not require to be as fresh as others. That of parsnips and onions should be fresh; peas, beans, sage, thyme, carrot, egg-plant and salsify seed are good for two years. Lettuce, spinach, radish, parsley and asparagus are safe for three years; cauliflower, cabbage, turnip, celery, and beet seeds are safe for four years—I have known the latter to grow when six years old, but I would not like to risk it always—melon, squash, cucumber, pumpkin and tomato seeds are good for even a longer time.

A knowledge of how and when to sow or plant seeds is very necessary. It will hardly do to put in radishes, peas, beans, squash, beets and onions on the same day. Many seeds are very tender, although they may have a harder appearance than some others which will stand a pretty severe frost without injury. Peas may be planted as soon as the frost is out of the ground; but beans should not be put in until about the 23rd of May. Pole beans will do, at least, as well if they be not planted until the 1st of June. Again, some kinds of seeds

require to be planted three inches deep, while others may be sown on the surface, and will grow with scarcely any covering of soil. In treating of the cultivation of the various kinds of vegetables I will give the best methods of sowing or planting.

The best soil for the smaller and most delicate seeds is composed of three parts good, rich loam, two parts well rotted stable manure or leaf mould, (the latter is preferable) and one part river sand. These should be well worked together and finely pulverized, and spread to the depth of an inch or two over the seed beds. After sowing and lightly covering the seed, the bed should be rolled with a smooth iron roller, or patted down gently with a spade; this is of the utmost importance if the season be unusually dry, as, without it, the hot, dry air would penetrate the loose soil and dry up the seed so that it could hardly vegetate. Heat and moisture combined, are necessary to germination, and the one will rarely be efficient without the assistance of the other.

Most of the early vegetables raised for the Halifax market are grown on soil enriched with decomposed kelp or rockweed which forces a strong early growth. When the seed is sown the beds are heavily covered with green spruce brush, which is gradually removed as the plants come up and the season advances. This is a very good method where hot-beds are not used. An excellent way of hastening vegetation is to cover the seed-bed with boards, laid flat on the surface, for a few days, this has

the effect of keeping the seeds warm and moist and causes them to germinate very rapidly. In a light, porous soil, if the weather be dry, the germination of the smaller kinds of seeds, such as celery, may be materially advanced by this plan.

Seeds, if fresh, will not require steeping, although a few "hard shells" may, by it, be induced to shoot out of the ground a day or two earlier. It is better to saturate the seed-bed with water and when the surface has become sufficiently dry to be raked nicely, the seed may be sown. Do not water immediately after the seed has been sown, as it will, perhaps, bake the surface. This applies to seed sown in the open ground, not in the hot-bed.

The following table will show the number of plants that may be raised from each ounce of seed:—

1 oz. Asparagus Seed.....	about 500 plants.
1 " Cauliflower or Cabbage Seed.....	" 2000 "
1 " Celery Seed.....	" 3000 "
1 " Egg Plant Seed.....	" 1000 "
1 " Lettuce "	" 3000 "
1 " Pepper "	" 1000 "
1 " Tomato "	" 1200 "
1 " Thyme "	" 5000 "
1 " Sage "	" 1500 "
1 " Summer Savory Seed.....	" 2000 "
1 " Sweet Marjoram "	" 2000 "

TRANSPLANTING.

This is an operation requiring more care, perhaps,

than any other in gardening. The best time to transplant is in rainy weather, if it should come just when it is wanted; but if not saturate the ground well in the forenoon with water, then after the sun has gone off the part in which the plants are to be set, or as late in the afternoon as the operation can be delayed, rake the ground freshly with a long-tooth rake; have your plants in a pail of water, then, with the dibber make the holes of sufficient depth to receive the roots of the plants without doubling them. Into these holes set the plants and press the earth firmly round them. *Be sure to do this.* Do not shake the water from the plants, as the soil will adhere better to the wet root and induce the formation of new root-fibres in, perhaps, twenty-four hours. It is better not to water the plants immediately after transplanting, nor until about forty-eight hours after, if the ground be sufficiently moist when the plants are set out. I am aware it is the general practice in Nova Scotia to finish transplanting by a thorough drenching with water, but I believe it is not only unnecessary, but to most plants injurious. Stout cabbage plants will bear such treatment, but more delicate plants will not do so well under it. Moisture only is required, and if the ground be very dry it is better to water carefully between and around the plants than the plants themselves. If the plants should wilt, however, only copious watering will save them. I always avoid this by shading my plants from the rays of the sun for a few days.

WATERING.

Very few of our gardeners understand that most plants require moisture as well as warmth, and it is very seldom that due provision is made for supplying them with water. In Germany, where, perhaps, gardening is conducted on a more scientific system than elsewhere, both vegetable and flower gardens are provided with tanks, casks, pumps, water-wheels, or other appliances for securing an adequate supply of water. The last work done in the evening by the German gardener is watering the garden; this is usually done with the common watering-pot, but in extensive gardens hose is used. In this country our summers are generally dryer than in most parts of Northern Europe, and, although sufficient rain usually falls for ordinary farm crops, we do not have as regular a supply as is necessary for our gardens. If an arrangement could be made by which we could have a "smart shower" about every alternate night there would be no necessity for artificial watering; but as this cannot be done we have to resort to the watering-pot. Every garden should have a tank, or one, two, or more casks to contain water—hogshead tubs are excellent for the purpose; they should be placed where the sun could act on them, or rather on the water contained in them, so that it may not be so cold as to chill the plants.

Every gardener should be supplied with two or three

sizes of watering-pots, say one, two, and four gallon sizes. Small, delicate plants require to be watered carefully from a fine rose, while the coarse kinds of vegetables should have the water poured on from a large rose, like a heavy shower of rain.

The roots of plants should never be allowed to get perfectly dry, therefore plenty of water should be given at a time so as to soak the ground two or three inches below the surface, and this should invariably be done in the evening. In very dry weather such vegetables as cabbages and cauliflowers should be completely drenched every twenty-four hours. If the land be properly drained the surplus water will soak through and leave the ground in just the moist state required.

Gardeners must use their own judgment as to the quantity of water required for the several kinds of vegetables, of course no set rule can be given; but it is safe to say that gardens in this country rarely have a sufficient supply.

INSECTS.

In the case of these pests of the gardener the old adage should be borne in mind, "an ounce of prevention is better than a pound of cure," for if insects once obtain a good footing in a garden it is one of the most difficult things imaginable to compass their destruction. The application of lime in the autumn, and a good manuring with bone dust in the spring, is about the most

effectual method of preventing the lodgment of most kinds of destructive insects in the soil. It is said that salt will kill insects, and so perhaps it will, but the quantity required to be used for the purpose would kill the plants too in most cases. Some plants, such as cabbages, cauliflowers, and celery, grow better after an application of salt, in moderation, to the soil; asparagus, for instance, actually requires it, and cannot be successfully grown without it unless it is within range of the sea breezes; but to most all tender plants salt is almost sure death. I have come to the conclusion that in gardens where a general assortment of vegetables are cultivated an application of bone dust is safer and quite as effectual.

Whenever you come across a grub, a slug, or a snail, execute him without delay, show him no mercy, for if you do he will be sure to repay your kindness by robbing you of some choice young plants before you may have another opportunity of securing him.



T
ticular
such
cultiv
the d
most
the fir

Str
unkno
perfect
profita
Hal
United
ported



VEGETABLES.

THEIR VARIETIES AND CULTIVATION.

THESE are but few vegetables grown in Northern Europe, or the Northern States of America, that cannot be successfully raised in this Province, particularly in the interior; but I shall confine myself to such only as are the most profitable, and most easily cultivated; and I shall describe only such varieties of the different vegetables as, in my judgment, are the most worthy of cultivation. Taking them alphabetically the first is

ASPARAGUS.

Strangely enough this is a plant that is comparatively unknown among our market gardeners, although it is perfectly hardy, and would, if cultivated, prove very profitable, as it is invariably productive, and saleable.

Halifax is now dependent on importation from the United States for this vegetable, and the quantity imported is so limited that our citizens rarely think of

asking for it. If it were brought to the Green Market a large quantity could be disposed of at remunerative prices.

The seed-bed for *Asparagus* should be prepared as early in the spring as the ground will admit of working, and be composed of good garden soil made very rich with well-rotted stable manure, and thoroughly mixed, worked, and pulverized; the richer the seed-bed the sooner will the plants be fit to transplant. Sow the seed one inch deep in rows about 12 or 15 inches apart. An ounce of seed will be sufficient for five rows ten feet long. The bed must be kept free from weeds. Carefully hoe the plants when necessary. If this be attended to the plants will be fit to set out in the following spring; but if not they may have to remain in the seed-bed another season. In the autumn cover the bed with three or four inches of old leaves or rough manure, so as to protect the roots from severe frost, for, although the plant is hardy and will stand this climate well, it will begin to grow much earlier in the spring if the frost be not allowed to penetrate below the roots; if this be done every year the shoots will be fit to cut a fortnight earlier in the season.

In the spring following the seed sowing prepare a bed in the same manner as the seed-bed, do not spare the manure and be careful to have it well worked in; rake the bed nicely and evenly, and then set the plants in rows two feet apart, or if you can afford the space 2

en Market
munerative
prepared as
F working,
very rich
ly mixed,
d-bed the
w the seed
part. An
s ten feet
ds. Care-
his be at-
e following
n the seed-
e bed with
manure, so
although
ell, it will
e frost be
is be done
ght earlier
pare a bed
spare the
in ; rake
plants in
space 2)

feet will be better ; the plants should be 9 inches apart in the rows. Set the plants out in the following manner. Make a cut somewhat slanting about six or eight inches deep, then lay the plants in against the side of the cut, spread the roots carefully, and cover the crown or top of the plant two inches. In about a week after planting go lightly over the bed with a sharp rake, which will disturb the roots of weeds and will, if continued once a week until the plants begin to grow well, save a great deal of trouble in weeding afterwards. After the plants get a good start apply the hoe freely between the rows, which will keep the weeds down, and your crop, monopolizing the whole strength of the soil, will grow more rapidly. The second year after planting, or the third from the time of sowing the seed, the plants may be cut for use, and the cutting repeated as the plants grow, until the 1st to the 10th of June, after which no more should be cut until the following season. Salt is a splendid top-dressing for asparagus, and should be applied in the spring only, at the rate of 1 lb. to 1½ lbs. per square yard ; it is beneficial to the plants and destructive to insects. After the rain has thoroughly washed the salt through the surface, it is a good plan to apply some kind of concentrated manure. Of superphosphate of lime use about four ounces to the square yard, or of bone dust about three-quarters of a pound ; sow on the bed and hoe it in. I have purchased bone-dust of Mr. Herbert Harris several times, and it has always given me

satisfaction. I think it a waste of manure to apply it as a fertilizer to asparagus beds, as some people do, in the autumn; it is useful at that season only as a protective covering from frost.

In the United States, in some localities, asparagus is sometimes attacked by an insect called asparagus beetle. Whenever the black-eggs, or the larvæ of this insect appear, the plants are cut and burnt; if this were not done many very handsome and profitable beds might be entirely ruined in a season.

ARTICHOKE—JERUSALEM.

As an article of food the Jerusalem artichoke is very wholesome, and in nutritive value equal to the potatoe, and although it is very easily grown in this country it is but little used. Boiled, and served with drawn butter, as cauliflowers are brought to table, it is an excellent dish, and it is really extraordinary that it is not more common than it is. The plant is a native of Brazil, and belongs to the same family as the sunflower, which it, in some respects, resembles; the flower is the same shape and color, but very much smaller. In England the plant rarely produces flowers; but in this Province, owing to our summers being dryer and warmer, it almost invariably blossoms. That, however, is not of much consequence, it is only the tubers at the root that are edible; these are produced in great abundance and have

one great advantage over the potatoe, *they are always free from disease*. The artichoke will grow in almost any soil ; but a good mellow loam is best. It should be planted in the same manner as the potatoe, and regularly hoed to keep the ground clean. In the autumn when the stalks are quite dry the crop should be dug, and stored in a dry cellar, in short it should be treated exactly like the potatoe.

BALM—LEMON.

This is a well known aromatic herb, but it is not much used ; it is easily and rapidly propagated from seed and by divisions of the root, which should be planted about a foot apart each way.

BASIL.

This is another strongly aromatic herb ; it is used for flavoring soups, &c., but, like lemon balm, there is no great demand for it. Sow the seed in rows one foot apart, and as the plants grow thin them out so that those left in the rows are five or six inches apart.

BEAN.

This is one of our most common garden vegetables, and, like peas, one of the most saleable. Beans are extensively cultivated, but many who raise them use

very little judgment in the selection of varieties. With such people "a bean is a bean," and many of our market gardeners have the idea that almost any kind will do to raise for market. This is a very great error, as some varieties are not only better and much more palatable than others, but much more prolific, and where only one bushel of one kind can be raised on a given space, two bushels of some other might be produced with the same amount of labor.

The bean is a tender plant, and one that is easily killed by late frosts, hence the seed should not be planted until the last week in May or the first of June, excepting in the case of broad Windsor beans which are more hardy, and may be planted a week or two earlier. The most suitable soil is a dry, light loam, well enriched with short manure—it cannot be too rich if an early crop is required. Bush-beans should be planted in drills twenty inches apart. Drop the seed in the drills three inches apart, and cover them about two inches deep with soil. In about ten days the plants will begin to appear; when they have grown a couple of inches the earth between the rows should be hoed to keep down the weeds. After one or two hoeings no more attention is necessary. Pole-beans are more tender than bush-beans and require somewhat more care than the latter. In the neighborhood of Halifax the 1st June is early enough to plant them; they require a warm, rich soil, and plenty of sun. I have never found any advantage

in planting earlier than the 1st of June. Pole-beans should be planted in hills three feet apart each way, five or six seeds to a hill. It is best to set the poles firmly in the ground first, and plant the beans at equal distances around them in a circle. In setting the poles after the beans come up the roots of the plants are apt to be disturbed or injured. The poles should be about eight feet long, and if they are inserted twelve or fifteen inches in the ground they will be plenty high enough. Some beans would grow to the top of a twelve foot pole if allowed to do so; but it is better to shorten the vines with a sharp knife when they have attained a height of seven feet; this treatment has the effect of throwing the strength of the plant into the blossoms, and giving rapidity to the growth of the pods.

I have almost invariably succeeded best with beans that were planted near a white-washed north fence or wall; a bright white fence reflects the rays of the sun and helps to ripen the beans at the back of the poles.

The kinds of pole-beans that I would recommend for this climate are the following:—

LARGE LIMA.—This is really the best and most delicious of all beans. It requires a very warm sandy soil, and should not be planted before the 1st June or it will almost invariably fail.

INDIAN CHIEF.—An excellent variety, not quite so productive as most others, but a delicious bean to use

either as a string-bean or shelled. It does not require quite so much care as the "Large Lima."

SCARLET RUNNER.—A well known variety which has been cultivated in this Province for years.

WHITE RUNNER.—The same as the "Scarlet Runner" except in color of both blossom and bean.

ASPARAGUS BEAN.—This bean is grown to some extent in Nova Scotia, but it requires a long season to bring it to perfection. It can be raised in Annapolis County better than in any other part of the Province. It is not a superior shelled bean; but as a stringed bean or for pickling it is excellent. Like the "Lima" it requires a warm sandy soil.

NEW ZEALAND.—This bean is but little known, as yet, in this Province. I got a few seeds from Mr. Harris last year, and planted them the same day I put in "Horticultural;" the "New Zealand" came up some days before the others, and proved the most prolific bean I ever raised. I counted eighty-five large pods on one pole, which supported only four vines; many of the pods were ten inches in length, and contained each nine beans. The pods are quite narrow and of a very dark green color, and when young are excellent string beans; but when nearly old enough for shelling the pods become somewhat stringy. As a shell bean the "New Zealand" is superior. For market gardening I think it would be almost, or quite, the most profitable bean.

HORTICULTURAL.—A hardy, productive, and deservedly popular variety, good for string beans until ripe enough to shell, and as a shelled bean only excelled by the "Large Lima."

CONCORD.—An excellent variety, more hardy than the "Lima," but not so rich and buttery. Prolific.

DUTCH CASE KNIFE.—Very productive, good flavor, and large pods; an excellent market sort.

BUSH BEANS.

Of these I will name only a few varieties, as they are more a field than a garden crop.

EARLY VALENTINE.—Very early, productive, and tender; a good string bean of excellent flavor.

MOHAWK.—A very hardy, productive sort; probably the most hardy bean grown, but not very early. A fair string bean.

WHITE EGG-BEAN.—A white bean, grown extensively in Annapolis County; the handsomest and best variety grown for sale in the dry state.

HORTICULTURAL BUSH.—The same description of bean as the "Horticultural Pole," with the exception that it is not a runner.

BROAD BEANS.

Of these there are several varieties; the "Windsor," "Early Long Pod," and "French" are the best known.

The "Windsor" is the best of the three, and the only one I would recommend; it is, however, very liable to be attacked by what is called "black blight" (aphis). This first makes its appearance at the top of the plant, and if not immediately attended to will destroy the crop. The best remedy is to cut the top off the plant and burn it. These beans should be planted in rows fifteen inches apart, and four or five inches apart in the rows, in very rich soil. Plant three inches deep. When the plants commence to grow and attain a height of five inches they should be hoed, loosely raising the earth about the stems two inches. Windsor beans require more moisture than any other, and in dry seasons should be well watered.

BEET.

This is a most valuable garden crop, as, when young the top of the plant makes the most tender and delicious greens, and when full grown the root is one of the most wholesome and nutritious of vegetables. It is therefore a profitable crop for the market gardener; the process of thinning out the plants as they grow is itself profitable, as the young plants sell well for greens.

The soil for beets should be light, and well pulverized and manured to the depth of fifteen or sixteen inches. There should be no stones nor hard clods of earth or clay throughout the bed that might divert the

young root and cause an ill-shaped vegetable. The straighter and handsomer a beet root grows the more saleable will it prove. Sow the seed two inches deep in drills one foot apart; the seed two inches apart in the drills. As the plants grow they must be thinned out to six inches apart. If beets are required for an early crop the seed may be sown about the 1st of May if the ground be in good order; but if for a crop for winter storage from the 1st to 5th June will be early enough. There is plenty of time for a crop of early dwarf peas to be grown on the ground, or a profitable crop of radishes, before sowing beet seed. There are many varieties of this vegetable of which the following are recommended.

ENGLISH BLOOD RED.—A good, but rough growing sort; good size and flavor.

LONG SMOOTH BLOOD.—A great improvement on the "English Blood Red;" it is smoother and handsomer, and a week earlier.

HENDERSON'S PINE APPLE.—A short-top variety; roots medium size; color rich crimson. In New-York State this is a favorite.

SHORT-TOP ROUND.—This variety is shaped like the early white turnip, free from straggling roots, rich dark color, early and good.

SWISS CHARD.—This is a distinct variety and is grown for its leaves only. The middle rib of the leaf is used as asparagus, and is considered superior to the

latter ; the other parts of the leaf and the young leaves are used as spinach. This plant is but little known as yet in this Province ; but it is really a delicious vegetable. The foliage is remarkably handsome and ornamental.

The soil for this plant need not be so deep as that required for other varieties of the beet family ; but it should be quite as light and rich.

BORECOLE—KALE.

This plant is not much grown here, but some varieties of it are the most tender and delicate of all the cabbage tribe.

In England and Scotland, and in some parts of the continent of Europe, Borecole is raised in large quantities both for market and in the gardens of private gentlemen. Sow the seed in the open ground in May, and, at the proper time, transplant as you do cabbage plants ; but, as it requires plenty of room, three feet of space should be left between the plants each way.

SCOTCH KALE, *green curled*.—A dwarf wide-spreading, very hardy variety. Will endure any amount of frost above zero, and may usually be left in the ground, and cut as required during winter, or at least until Christmas.

PURPLE BORECOLE.—Except in color this is similar to the “green curled,” perhaps a little more hardy. The color is purple.

COTTAGER'S KALE.—This is the favorite English Kale, dwarf in habit, very hardy, leaves beautifully curled, and of a handsome, brilliant green color. It requires less room to grow than any other sort, and is therefore the most profitable kind for small gardens. The plants must be set from twenty-six to thirty inches apart.

CARTER'S IMPROVED GARNISHING KALE.—A remarkably handsome, fringed variety, splendidly variegated with green, white, purple and rose,—much used in Europe for garnishing. It would not pay our market gardeners to raise much of it, as but a limited quantity could be sold in our markets.

BROCOLI.

This vegetable is almost identical with cauliflower ; but is rather coarser, and of inferior flavor. The seed should be sown in May, and the plants set out in July in the most shady part of the garden. Shade the young plants for some days after transplanting. Never let the ground get very dry. Brocoli requires, like cauliflower, plenty of water ; it also requires a very fertile soil. It comes to perfection usually late in October.

The two following sorts are all that need be recommended.

EARLY WHITE CAPE.—A good creamy white variety, medium sized heads, compact.

PURPLE CAPE.—Hardier than the above, and the most

certain to form a good head ; of a greenish-purple color, and on this account only is it of less market value than the " white cape."

BRUSSELS SPROUTS.

We never meet this vegetable for sale in our markets ; it is rarely ever grown in Nova Scotia even by amateurs, which is somewhat remarkable, as it is not excelled by any of the cabbage family for delicacy of flavor. It is not so hardy as cauliflower, brocoli, or cabbage ; but will stand our climate very well until November.

Brussels sprouts are different in appearance from all other plants of the cabbage kind, it grows up from the ground to the height of three or four feet in a straight stem or stalk, with a head somewhat resembling a small savoy cabbage ; this head is not of much value and is not generally used. All around the stalk numerous little buds make their appearance, which soon grow to the size of a walnut. These little green heads, like miniature savoys, are the edible part of the plant and are cut off as required through the season. The culture of Brussels Sprouts is precisely the same as for Cabbage. There are no varieties.

CABBAGE.

Cabbages should be grown in rich, deep soil, with the manure thoroughly worked in. For this plant I

would strongly commend a layer of bone dust for manure, there is nothing like it, and if it can be mixed with about half its bulk of coal soot so much the better. In England soot is sold by the chimney-sweeps to the market gardeners at a large price, in this country it is generally thrown away. As a manure it is very valuable, particularly for all kinds of cabbage plants, and where it is used there is not much danger of the plants being injured by insects.

Cabbage plants should be started in a hot-bed if wanted early. Sow the seed about the middle of March, and from the time the plants make their appearance above ground, which will be in ten or twelve days, give them air at first in the middle of the day in fine weather, and as the days grow longer and warmer uncover the bed from early morning until sundown, and for the last four or five days before transplanting the sashes should be removed altogether. About a week before transplanting prepare the bed to receive the plants and let it stand until you are ready for it, then rake it over nicely and evenly and set out the plants (see chapter on transplanting). If you can get a bundle of shingles they would do nicely to shade the plants until well rooted, after which water frequently and hoe up as the plants require it. For late cabbages sow in the open ground early in May.

There are at least thirty varieties of cabbage, only a few of which need be named. Of the early

sorts the favorite in the United States is the first named.

JERSEY WAKEFIELD, or *Early Wakefield*.—Considered superior to all others, very large heads, in form nearly pyramidal, compact, very early.

EARLY YORK.—One of the oldest and best known varieties, and is perhaps, more generally cultivated, quite as early, but not so large as the “Wakefield.”

LARGE YORK.—Similar to “Early York,” but larger and later.

LITTLE PIXIE.—Very early, small, and delicate.

LATE SORTS.

PREMIUM FLAT DUTCH.—Large, handsome, and tender. This variety is often considered early, although it is of slow growth, fully three weeks behind the “Wakefield” and “Early York.” I class it among late cabbages although it is not well adapted for winter keeping.

LARGE DRUMHEAD (Mason's).—Good size, solid, and tender; certain to head, splendid winter sort.

BERGEN DRUMHEAD.—One of the largest, remarkably hardy, may be left out until December—excellent.

MARBLEHEAD MAMMOTH.—Enormous size, free header, superior; one of the best winter sorts.

DRUMHEAD SAVOY.—This is the variety of Savoy cabbage most generally cultivated, largest, very solid, excellent flavor.

Savoy cabbage is far superior in quality and flavor to the common cabbage, and as it is quite as easily cultivated, it is strange that it is not more extensively raised and that there is not more demand for it than there is.

GREEN GLOBE SAVOY.—Smaller than "Drumhead," leaves very much curled and wrinkled; its upright growth allows it to be planted eighteen inches apart in rows twenty to twenty-four inches apart. This is a favorite sort.

RED DUTCH.—Used for pickling; the hardiest of all cabbages, of slow growth, and requires very rich soil.

CHAPPEL'S RED PICKLING.—New, brighter color than "Red Dutch," and more tender.

CAULIFLOWER.

This vegetable is rapidly gaining favor among our market people, if we may judge by the quantity with which our markets are now supplied in comparison with the supply of ten years ago; but it is seldom that a good specimen is seen. Bunches of long, spindling pea-green stalks with little yellow knobs on the ends of them are not worthy of the name of cauliflowers; such, however, is a true description of what we usually see in our markets bearing the name. A good cauliflower has the blossom well developed, is close, compact and heavy, and the stalks supporting the blossom are almost of as

creamy a whiteness as the blossom itself. Not more than five per cent of the cauliflowers brought to market in Halifax are worth buying. Of course there is a cause for this, and it is not because the plant cannot be raised to perfection in this country by any means. Quite as good garden vegetables of almost every description may be grown here as in any part of Europe or America. The fault is in the method of cultivation. Cauliflowers cannot be grown two or three years in succession in land manured with stable manure alone; they must have lime, and that is best applied in the form of flour of bone. I believe I raised the best vegetables of this class that were grown last season in the County. I was astonished at their rapid growth. Although I did not set out the plants until the 1st of June I commenced to cut them the latter part of July. I could have used them at least a week earlier, but I wanted to see how much larger they would grow. Nearly all of them measured from nine to eleven inches in diameter after every particle of green leaf was cut off. The heads were composed of a solid mass of flower on top, and the stalks were nearly as white, tender, and delicious as the flower. I did not raise the plants from the seed, but purchased them at the Horticultural Gardens of Mr. Hutton. They were the "Early London." I tried some of the "Erfurt" but did not succeed so well with them; the latter is, perhaps, somewhat more delicate in flavor than the former, but I could not get it to attain

Not more
at to market
is a cause
st be raised
Quite as
ription may
or America.
Cauliflowers
ccession in
they must
rm of flour
bles of this
nty. I was
I did not
nnenced to
have used
to see how
l of them
meter after
The heads
op, and the
ous as the
e seed, but
ns of Mr.
' I tried
well with
delicate in
t to attain

the same dimensions or weight, and with me it proved of slower growth and a later instead of an earlier sort as represented. I am convinced the "Early London" is the most profitable, and I attribute my success in its cultivation to manuring with bone dust, and drenching the plants every evening with water. Cauliflower seed should be sown in the hot-bed from the middle of March to the 1st of April. When they are large enough, that is from four to six inches high, they may be transplanted at once in the open ground. It is customary in the neighborhood of New York to sow the seed five or six weeks earlier, and transplant twice: first into a spare, partly spent hot-bed, and after that to the open ground; but here it would hardly pay to expend the labor and care necessary in this method in order to have the plants fit for market so early in the season.

Probably the best method of setting out cauliflower plants is to dig a trench one foot wide and a foot deep; in this trench put eight inches of good, well-pulverized garden soil: do not pack it down, throw it in loosely with a spade, rake it over evenly and then cover it with bone dust in the proportion of one pound to every eight or nine feet of trench. Rake this well into the soil and let it stand a week, at the end of that time rake it again early in the day, and water it pretty well; in the afternoon set out the plants twenty inches apart. Lettuce plants may be set out between them, as the latter will be fit for the table before the cauliflowers are large

enough to interfere with them. When the plants are set out the trench may be covered over with boards during the day to protect the plants from the rays of the sun until they have taken root, which will be in three or four days. The boards may then be removed and the plants be slightly watered, at the end of another three days they may be again watered. By this time the plants will have got a good start, and then may be copiously watered every forty-eight hours—always in the evening. When the plants have grown sufficiently fill in around them a couple of inches of earth, and in ten days or a fortnight after that repeat the operation, filling the trench. Cauliflowers require a great deal of water, and by planting them in trenches the water cannot run off as it does to a great extent when the plants are hoed up. The spaces between the trenches and around the plants must be kept clear of weeds. When the flower begins to appear drench the plants with water every evening. The above method has been suggested to me, I have not tried it, but I have a very favorable opinion of the plan, and think it ought to succeed.

At the present there are about twelve varieties of cauliflowers, and, although I will describe a few of them, I would recommend, as I have already stated, the "Early London" before all others.

EARLY LONDON.—One of the best, large, and sure to head if properly cultivated.

EARLY PARIS.—Early and good, white head, short

stalk, requires about as much space as "Early London."

HALF EARLY.—A very useful variety, as it is later than most others and comes in about the time the early sorts are used up.

WALCHEREN.—Very hardy, early, compact heads.

EARLY ERFURT.—A favorite in the United States, very delicate flavor, large heads, but not so certain to head as the "Early London."

CARROT.

This is more a field than a garden crop, yet it is a profitable vegetable to raise even in a small garden. It does not require a rich soil, I have seen a very fine crop taken from a piece of new land that had been quite lightly manured, whilst I did not succeed so well with mine that were raised in highly enriched garden soil. Gardeners differ, however, in regard to the best land for carrots, one asserting that it is utterly useless to attempt to raise them on anything but a good, deep, rich soil, while another says that a rich soil induces the growth of tops rather than roots. I do not agree with either; if the soil be very poor and rough the crop will generally be small and the roots not so crisp and tender as if the soil were enriched to a certain extent. I should recommend a medium amount of manuring with a compost of leaf mould and old stable manure, and a

thorough pulverizing and working of the soil—which should be a light sandy loam—to the depth of at least fifteen inches.

The seed should be sown for an early crop, in April an inch deep in drills one foot apart; the plants may be thinned out to four inches apart. When they show themselves an inch above the surface weeding must be commenced. Carrots are of slow growth at first, and, if not carefully watched, will be very apt to become enveloped with weeds to the serious injury of the whole crop.

The bed should be watered occasionally, as in very dry weather the seed germinates slowly and feebly, and comes up thinly; for this reason also it is better to sow plenty of seed. This is the case with nearly all seed that are sown or planted; some are sure to miss, either from having been imperfectly ripened or by the ravages of some destructive insect.

The following sorts of carrots are recommended.

EARLY HORN.—A fine early variety, best for table, small but excellent.

LONG ORANGE.—Large size, good flavor, a well known variety.

JAMES' INTERMEDIATE.—Probably a cross between the "Early Horn" and the "Long Orange," very good and prolific.

LARGE ALTRINGHAM.—Deep orange-red in color, very fine flavor, good size.

CHERVIL—TURNIP-ROOTED.

A vegetable resembling the Parsnip in shape, pale gray color, and in taste something like a sweet potatoe. Its cultivation is the same as that of carrots or parsnips—not much used, nor highly recommended.

CELERY.

The common method of cultivating this vegetable is in trenches, a very good method, but one involving much more labor than there is any necessity for. Many of our gardeners would perhaps laugh at the idea of trying to raise good celery in any other way; but the trench system is almost entirely out of date in the United States. Henderson's description of the manner of cultivation practiced by New York market gardeners is so simple that I will quote it here almost entire, although it is adapted for gardening on a much more extensive scale than is common in Nova Scotia, the method is equally applicable for gardens of a more limited extent. Spade and rake work must be substituted for ploughing and harrowing.

Henderson says—"Our manner of treating the celery crop of late years is very much simplified. Instead of sowing the seed in a hot-bed or cold frame as formerly, it is sown in the open ground as soon as the ground is fit to work in the spring—here about the

first week in April—on a level piece of rich mellow soil, that has been specially prepared by thorough pulverizing and mixing with short stable manure. The bed being fined down by raking so that it is clear of stones and all inequalities, lines are drawn out by the ‘marker’ 8 or 9 inches apart, in beds of 8 rows in a bed, rubbing out every ninth line for an alley on which to walk when weeding, &c. The seed should be sown rather thinly, one ounce being sufficient for every twenty feet in length of such a bed. After sowing, the bed should be rolled, or patted down with a spade, *which will give the seed sufficient covering.*

“As soon as the seeds begin to germinate, so that the rows can be traced, hoe lightly between the rows, and begin to pull out the weeds so soon as they can be seen. One day’s work at the proper time, will be better than a dozen after the seed bed gets enveloped with the weeds, besides ensuring much finer plants.

“As the plants advance in growth, the tops are shorn off, generally twice before the time of setting out, so as to produce a stocky growth; plants thus treated suffer less on being transplanted.

“Celery may be planted from middle of June to middle of August; but the time we most prefer is during July, as there is little gained by attempting it early. In fact, I have often seen plants raised in hot-beds and planted out in June far surpassed both in size and quality by those raised in the open ground and planted a

month later. Celery is a plant requiring a cool, moist atmosphere, and it is nonsense to grow it early in our hot and dry climate. * * * *

Celery is always grown as a 'second crop' by us, that is, it follows after the spring crop of beets, onions, cabbage, cauliflower, or peas, which are cleared off and marketed, at latest, by the middle of July ; the ground is then thoroughly plowed and harrowed. No additional manure is used, as enough remains in the ground, from the heavy coat it has received in the spring, to carry through the crop of celery.

" After the ground has been nicely prepared, lines are struck out on the level surface, 3 feet apart, and the plants set 6 inches apart in the rows. If the weather is dry at the time of planting, great care should be taken that the roots are properly 'firmed.' Our custom is to turn back on the row, and press by the side of each plant gently with the foot. This compacts the soil and partially excludes the air from the root until new root-lets are formed which will usually be in forty-eight hours, after which all danger is over. This practice of pressing the soil closely around the roots is essential in planting of all kinds, and millions of plants are annually destroyed by its omission.

" After the planting of the celery is completed, nothing further is to be done for six or seven weeks, except running through between the rows with the cultivator or hoe, and freeing the plants of weeds until they get

strong enough to crowd them down. This will bring us to about the middle of August, by which time we usually have that cool atmosphere essential to the growth of celery. Then we begin the 'earthing up,' necessary for blanching or whitening that which is wanted for use during the months of September, October and November. The first operation is that of "handling," as we term it, that is, after the soil has been drawn up against the plant with the hoe, it is further drawn close around each plant by the hand, firm enough to keep the leaves in an upright position and prevent them from spreading. This being done, more soil is drawn against the row, so as to keep the plants in this upright position. The blanching process must, however, be finished by the spade, which is done by digging the soil from between the rows and banking it up clear to the top on each side of the row of celery. Three feet is ample distance between the dwarf varieties, but when 'Seymour's Superb,' 'Giant,' or other large sorts are used, the width between the rows must be at least $4\frac{1}{2}$ or 5 feet, which entails much labor and loss of ground. For the past eight years I have grown none but the dwarf varieties, and have saved in consequence at least one-half in labor, and one-third in ground, while the average price per root in market has been always equal, and occasionally higher than for the tall growing sorts.

"My neighbors around me have at last got their eyes open to the value of the dwarf sorts, and I think that

a few years more will suffice to throw the large and coarse flavored sorts, such as 'Seymour's Superb,' and 'Giant,' out of the markets."

This, although a lengthy description, is clear and simple, and I think if the method were generally adopted in this Province a great deal of time and labor would be saved in the cultivation of celery. One of my friends, who resides in Dartmouth, has favored me with a description of his method of cultivation, which is as follows:—

"Sow the seed in the open ground early in May in rows six inches apart, soil rich and finely dressed, cover the bed with boards to aid germination of seed. Thin the plants out, as they grow, to three inches apart. When the earliest peas are gathered, make a trench ten or twelve inches deep, put in this four or five inches of good old stable manure and cover with two inches of fine earth; transplant carefully, and water and shade the plants until rooted. If the soil be dry water frequently with sea water, or, occasionally with salted water. Fill up the trench, not too rapidly, *and be sure to keep the heart of the plant free, as, if covered, it will cease growing.* After the first frost, say early in November, take up the celery and plant in earth in boxes in the cellar, and it will keep good until spring."

There are only four or five kinds to be recommended, viz.:—

INCOMPARABLE DWARF.—The best celery grown, very solid, tender, and crisp, and of delicious flavor.

COLE'S CRYSTAL NEW WHITE.—Dwarf, solid, crisp, excellent flavor.

BOSTON MARKET.—Of low branching growth, white and crisp, a favorite in Boston.

DWARF RED.—Similar in all respects to the "Incomparable Dwarf," except in color; the stalks are a beautiful crimson, *flavor superior to white*.

SEYMOUR'S SUPERB.—Very large, coarse, but the best of the large sorts, only recommended as such. Dwarf celery is best and in every respect the most profitable to cultivate.

CHICORY.

This root is the best substitute for coffee, is cultivated in the same manner as carrots, and is extremely hardy. For use the roots are taken up in the autumn, washed, cut up and well dried, then roasted and ground.

CHIVES.

This plant belongs to the onion family; it is so well known and so easily cultivated that I need not give either a description of, or directions regarding it.

CORN.

This is properly a field crop, and as it takes up con-

siderable space, is not profitable to raise in gardens. It should be planted in hills in very rich sandy loam; a tablespoonful of calcined gypsum in each hill will have the effect of attracting and preserving moisture all the season. Never plant corn in single rows, nor until the weather is settled and tolerably warm—about the time of planting pole beans is the proper time to plant corn.

The sweet varieties are best for gardens, and, perhaps, the best among them is the first named.

EARLY DAISY.—Of good size, tender and sweet.

EARLY MINNESOTA.—Very early and good.

TWELVE-ROWED SWEET.—Rather larger, but not quite so good flavor as either of the first two.

RUSSELL'S PROLIFIC.—Very superior, large ears, early.

There are some late sorts of sweet corn, but I would not recommend them for this climate. Of the common yellow corn, the "Early Canada" or "Nova Scotia" is best. That raised in the County of Annapolis is the most valuable for seed.

CRESS—PEPPER-GRASS.

This well known plant is one of the most wholesome of salads, and, like the "water-cress," valuable as a blood purifier. The best is the "Double Curled." The seed should be sown thickly in good garden soil in drills. The plant grows rapidly and may be cut close to the ground three or four times. Give it plenty of water.

CRESS—WATER.

In Europe this cress is used in immense quantities. It is a hardy aquatic plant, and is, in England, found in abundance along the margins of brooks and ponds. It may also be grown on low lands if copiously watered every day; but this involves a considerable amount of labor, and on that account I would recommend the method only to amateur gardeners to whom a little extra expense is no object. If the seed be sown along the margin of a brook in very shallow water, nothing more is necessary than to gather the crop, which is usually done in the spring. Water cress if introduced into the Halifax market would bring a good price, and as it costs nothing after the first cost of the seed but the labor of gathering and marketing, it would pay enormously. In the vicinity of New York some farmers realize more money from the sale of water cresses which grow on the margins of brooks running through their farms, than on all their farm crops combined. Any one who could flood an acre of low land on his farm with from four inches to a foot of water, and seed it with water cress, would realize, probably, \$1000 per annum from the sale of the plant.

CUCUMBER.

This vegetable is so commonly grown here that almost every one who cultivates a piece of ground, how-

ever small, thinks he knows just exactly how to raise it. Still as this is a progressive age, "the age of improvement," there may be something to learn even in the cultivation of cucumbers, and there is a method that is an improvement on the general system of culture in Nova Scotia. Here the seed are usually planted in a hot-bed in April, or out in the open air about the middle of May, and very often the seed "wont come up," and more have to be planted; and oftener, after the seed do come up, they are nipped off by some hungry or destructive insect just above the ground. The following plan practised in New-York State avoids all this annoyance, and at the same time produces better and earlier plants.

About the 15th of May, sods from two to three inches thick are cut from a pasture, and placed, grass side down, in an exhausted hot-bed. The sods are fitted closely and neatly together, and are then cut into squares three or four inches in diameter; on each of these squares two or three seeds of cucumber are planted, and then over all is placed about half an inch of light rich mould. They are then sprinkled thoroughly with water from a fine-rose watering pot. The sashes of the frame are then put on, and kept on until the seeds germinate, about four days. As soon as the plants make their appearance above ground the sashes are raised to admit air during the day, and are closed again in the afternoon about four o'clock. In about three weeks the plants

attain two or three rough leaves, and are then planted out in the open ground in hills three feet apart each way. The hills are previously prepared by mixing in each hill a shovelful of well-rotted manure. If the weather be hot and dry at the time of transplanting, the hills are well watered *once* immediately after the plants are set out. Those who have no hot-bed suitable may succeed almost equally well by starting the seed in the house either on the sod, in a box, or in small flower pots.

Pickling cucumbers should be grown in hills four feet apart each way. The seed need not be planted until about the end of June. About ten or twelve seeds may be put in a hill.

VARIETIES

EARLY FRAME.—Small size, handsome, early.

WHITE SPINED.—Size from six to eight inches in length, and from two to three inches in diameter; crisp and good.

LONG GREEN PRICKLY.—Large size, good when picked young.

LONG GREEN TURKEY.—Very large, very firm, superior flavor, and has very few seeds.

CARTER'S CHAMPION.—A fine English variety.

MANCHESTER PRIZE.—Immense size, handsome, fair quality.

GERKIN.—For pickling only.

EARLY CLUSTER.—Very productive, excellent, and early.

EGG PLANT.

This is a very tender plant, which, in order that it may mature its fruit, must be started in a hot-bed. There are about four varieties; but the only kind I would recommend for this climate is the "*New York Improved*." This fruit is about the size of a citron melon. In shape it is something like a pear, but ribbed, of a handsome dark purple color. It requires the richest and warmest soil possible, and should not be transplanted to the open ground until the 10th of June, unless the season is unusually forward and warm. Set the plants three feet apart. The seed should be planted in the hot-bed about the 1st of April. As this plant is rather difficult to cultivate, it is a question whether its sale would, in this Province, compensate for the trouble of raising it.

ENDIVE.

This is a salad of a slightly bitter but pleasant taste, and is prepared for the table by blanching. It is used only in the autumn, and is grown in the following manner. The seed are sown about the middle of June, and then transplanted in August. It must be kept clear of weeds until full grown, when it must be blanched by straightening up the leaves and tying them at the top.

with bass matting, or some soft, thick string, or by covering the plants with boards, or indeed anything that will exclude the light and air. In four or five weeks from the time of tying or covering, the plants are eatable. There are only two kinds worth growing.

GREEN CURLED.—Highly ornamental, richly curled leaves, which are excellent for garnishing.

MOSS CURLED.—In quality similar to the “green curled,” of very handsome growth and appearance.

HORSE RADISH.

Although this is a well-known plant in this Province, there is very little demand for it in our markets. In the United States it is raised by the acre and sold by the ton. The price averages nearly \$200 per ton, and five tons are grown on an acre. The land, however, is highly enriched for the purpose; such crops could never be grown by the ordinary method of farm cultivation. Horse-radish is grown from roots or sets of from four to six inches in length, which, in this Province, may be planted about the middle of May. In the United States it is generally planted between the rows of cabbages, in the following manner. A hole is made in the soil, with a long sharp-pointed stick, or a crowbar, to the depth of eight inches; into this hole the horse-radish set is dropped, and then the earth is pressed closely along side the set, filling up the hole and covering the set two or three inches.

Horse-radish should be dug up in the autumn, for if let alone and left in the ground it will spread so rapidly that in a year or two it will be difficult to eradicate the roots.

KOHLRABI.

This is a singular vegetable, in appearance something like a turnip; but, unlike the latter, the edible portion of the plant grows above ground. The stalk just above the ground swells into a sort of bulb resembling a rutabaga. When eaten young it is very tender and good, but if left until it exceeds four inches in diameter it is apt to be stringy. The kohlrabi is extensively cultivated in Europe, both for the table and for stock, for which it is considered much superior to the turnip. Sow the seed about the 1st to 10th June, in drills like turnips. As it is difficult to transplant it successfully, it is best not to attempt it, but to thin out the plants to about nine inches apart in the seed bed.

Bone-dust is an excellent fertilizer for this vegetable.

There are a half-dozen varieties; the best for general cultivation are,

LARGE EARLY PURPLE.—Handsome purple color, tender, and good for the table.

EARLY WHITE.—Similar to the preceding, except in color, which is greenish-white.

LATE PURPLE.—Only suitable for stock.

LATE GREEN.— ditto. ditto.

LEEK.

Prepare a seed-bed as for celery and sow in drills one foot apart, about the last of April. Do not let a weed make its appearance. The plants will be large enough to transplant in July; they should then be placed six inches apart in rows one foot apart. The soil cannot be too rich. The Musselburgh leek is the best.

LETTUCE.

This vegetable is of general cultivation, and, to market gardeners, one of the most important, as it is easy of culture, very early, and always in good demand, at least until quite late in the summer. The seed should be sown in the hot-bed about the end of March, and the plants may be set out between cabbage and cauliflower plants, which plan economizes space. The lettuce is all matured and taken up before the cauliflowers or cabbages grow sufficiently to require the full space allowed, viz., twenty to twenty-four inches each way.

When not planted between cabbages, but in a bed by themselves, one foot of space, each way, should be left between the plants. Soil suitable for cabbage is the best for lettuce, and the general treatment the same for both.

EARLY CURLED SIMPSON.—Rather more curled than the "Curled Silesia," very early and tender; does not head, but grows to a large size.

CURLED SILESIA.—A well known variety in this country, similar to the "Early Curled Simpson," but not quite so early.

TOM THUMB CABBAGE.—Dwarf, crisp and good, heads well.

TENNIS BALL.—Solid, hard head, good flavor, and early.

DRUMHEAD CABBAGE.—Large, compact heads, very early.

BLACK-SEEDED BUTTER.—Similar to "Tennis Ball," but of immense size, a very profitable sort."

CARTER'S GIANT WHITE COS.—The flavor of the Cos varieties is much superior to other sorts, but in our climate they do not head well, probably for lack of sufficient moisture. Copious watering, and tying up would perhaps remedy this. The "Giant White" is large, handsome, crisp and tender.

PARIS GREEN COS.—Large, solid, excellent; one of the best.

BROWN COS.—An old English sort, brownish-green in color, highly esteemed.

MANGLE-WURZEL.

Belonging to the beet family, suitable for stock only, it is too coarse for the table—grows to an immense size. The varieties to be recommended are "Carter's Mammoth Long Red," "Carter's Improved Orange Globe,"

"Yellow Globe," and "Olive Shaped Red." Cultivation same as for beets.

MARTYNIA.

This is used chiefly for pickling; it is quite hardy and easy to cultivate. Sow the seed in the hot-bed in April, and transplanted in the open ground in June. Set the plants two feet apart. Soil must be light and rich.

MELON.

There are two kinds of melons, namely, musk and water melons, and of each there are several varieties. They should be cultivated the same as cucumbers; but the seed should be planted in the hot-bed two or three weeks earlier, and somewhat deeper in the ground, and the plants, when transplanted, should be placed in hills six feet apart for musk and eight feet apart for water melons, four plants to each hill. The term "hill" is not applied to denote a mound, say a foot or more in height; but simply as a convenient way of directing where the plants are to be placed. I do not approve of the old plan of planting squash, melons, and cucumbers on hillocks which allow nearly all the rain to run off. There should be a very slight, if any elevation. Melon plants require to be well sheltered on the north, and have the sunniest place in the garden.

Of musk melons the following varieties are the most hardy, and therefore the most suitable for this climate.

LARGE YELLOW.—Oval shape, sweet, with musky flavor.

GREEN CITRON.—Medium size, nearly round, deeply netted, greenish flesh, rich and delicious in flavor, early and productive.

PINE APPLE.—Nearly round in form, green flesh, sweet and good.

BORNEO.—Large, deeply ribbed and netted, yellowish green flesh—excellent.

WHITE JAPAN.—Of a cream-white color, deeply ribbed and slightly netted, flesh yellow, sweet, delicate, and delicious.

NUTMEG.—Nutmeg shaped, medium size, green flesh, superior flavor. Not quite so productive as some of the others.

Of water melons the following are recommended :

MOUNTAIN SWEET.—Dark green, flesh red, sweet and rich in flavor, early and hardy.

MOUNTAIN SPROUT.—Similar to "Mountain Sweet," but not quite so early ; very large.

BLACK SPANISH.—Medium size ; skin very dark green, flesh red, very delicate, as early as "Mountain Sweet."

CITRON WATER MELON.—Quite small, used only for preserving.

ICE CREAM.—White flesh, good flavor, but not equal to the red-flesh varieties. It is, however, hardy, and nearly a fortnight earlier than the others.

MINT.

This is a perennial plant very common in Nova Scotia; it is very hardy and of the earliest culture. It is propagated by divisions of the roots, and when fully grown may be cut year after year without injury.

MUSHROOM.

Mushrooms are seldom cultivated in this Province. In the country they are gathered on the marshes and pastures, but they may be very profitably cultivated.

Beds for mushrooms are best prepared under cover, in a barn or cellar that is frost-proof, in the following manner: Collect fresh horse manure, and mix with it thoroughly an equal quantity of new loam (from pasture land is perhaps most suitable.) Turn the heap over every day for three or four days so as to get rid of the most violent heat. The bed should be made about four feet wide. First put down a thin layer of the mixed soil and manure, and beat it down firmly with the back of a spade or with a brick, then put on another layer and pound that down; and so on until the bed is eight inches deep—no more nor less. Then plunge a thermometer in it, and in a couple of days it will be seen that the mercury has risen to over 100 degrees. When it declines to about 90°—place the mushroom spawn in the bed, in holes made with a sharp stick, about one

foot apart each way. A piece of spawn about the size of a hen's egg is sufficient for each hole. Then cover up the holes with the compost and *let the bed stand for about twelve days before covering it with soil.* At the end of that time the spawn will have spread through the whole bed; then cover it with about two inches of fresh loam, and beat it down lightly with the back of the spade, and over that place about four inches of straw. In about a fortnight the bed should be examined, and, if very dry, it should be gently sprinkled with tepid water, and then be again covered with the straw. In about six weeks mushrooms will begin to make their appearance. After the crop is all taken off, which, as the mushrooms do not all come up at once, will be in about three weeks, a light dressing of soil, say half an inch, may be put on and beaten down with the spade as before. The bed should then be sprinkled with tepid water, and, in about a month after, a second crop may be gathered. The best time to make the mushroom bed is in December.

NASTURTIIUM.

This plant is highly ornamental as well as useful. The blossoms are very handsome, and the seeds when pickled are an excellent substitute for capers. Any good garden soil will suit.

There are many varieties of them; but the two following are those which are used for pickling.

TALL NASTURTIUM.—Grows to the height of eight or nine feet. Flowers are yellow, blotched with crimson.

DWARF NASTURTIUM.—Height from two to two and a half feet; flowers bright yellow, blotched with scarlet.

OKRA.

This vegetable is called “Gumbo” in the Southern States, where it is abundantly cultivated. It bears a long seed-pod which is used in soups and is much esteemed. There are two kinds, the “tall” and “dwarf;” the latter is the earliest and most suitable for the latitude of this Province.

The seed should be started in a hot-bed in April, and transplanted in the open ground in June. Set the plants two feet apart. Okra grows and bears abundantly in any ordinary garden soil; but prefers a light sandy loam well enriched with old stable manure.

ONION.

A very rich soil is necessary in order to have onions grown of full size in one season, and the seed should be sown as soon as the frost is out of the ground in the spring, no matter how cold the weather is. The bed must be kept entirely clear of weeds, this is essential, and must not be neglected. Sow the seed in drills twelve to fifteen inches apart. When the plants are about four inches high thin them out to three inches

apart. As the plants grow hoe well between the rows to keep down weeds ; but be careful not to disturb the roots of the onions, nor to draw the earth over them in hoeing. There are some large Italian onions which have lately been brought to this side of the Atlantic ; they are enormous in size, some of them weighing three and a half pounds each. In flavor the Italian onions are mild, delicate, and sweet ; but they do not keep long.

WEATHERSFIELD LARGE RED.—One of the best for general cultivation, very productive and keeps well.

YELLOW DANVERS.—Early, productive, excellent flavor, and keeps well.

LARGE YELLOW.—Quite large, very flat in shape ; a well known sort.

SILVER SKINNED.—Very white and handsome, early, delicate flavor, not good to keep.

NEW GIANT ROCCA.—A splendid, large Italian sort, globular, light color, very mild and sweet.

MARZAJOLE.—Italian, new, large, very early.

LARGE BLOOD RED ITALIAN TRIPOLI.—As large as "Giant Rocca," skin blood-red, good.

EARLY FLAT WHITE ITALIAN TRIPOLI.—White, mild, rapid grower, early.

ORACHE.

A delicate and wholesome kind of greens. Sow the seed thickly in April.

PARSLEY.

Parsley is more generally used for garnishing than anything else; it is also used in soups. It is easily grown; but, under any circumstances, the seed germinate slowly; if put in warm water and allowed to soak twenty-four hours they will come up a few days earlier. Sow early, in warm soil, in rows one foot apart.

EXTRA CURLED.—Dwarf, handsomely curled.

CARTER'S CHAMPION MOSS CURLED.—Large and superior.

COVENT GARDEN.—Probably the very best for garnishing.

PARSNIP.

This is, probably, the most hardy vegetable grown. Frost, instead of injuring, improves the flavor. It may be left out all winter and be frozen solid, and when dug in the spring is, perhaps, the most delicious and wholesome vegetable we have. Its cultivation is in every respect similar to the carrot.

LONG HOLLOW CROWNED.—Perhaps the best parsnip grown.

LARGE DUTCH.—Very large, one of the best.

LARGE GUERNSEY.—Another fine variety.

PEA.

The pea is remarkably hardy, and therefore may be

sown in the open ground as early as the 1st of April, or earlier if the frost is sufficiently out of the ground to allow of its being worked. I have seen peas three or four inches high, completely covered by a late snow storm, and not injured in the least.

A soil that is naturally light and warm is best for an early crop of peas. It does not require to be very highly enriched, only a slight manuring with stable manure or bone-dust will be necessary. Peas of the early sorts if sown the 1st of April, will be fit to gather early in June, if the season be favorable; at all events they will be off the ground in time to put in beet seed or cauliflower plants, or celery.

The seed should be sown thickly in drills at least three inches deep, the drills for the tall growing sorts, such as "Daniel O'Rourke," should be about three feet apart, and for dwarf peas from twelve to fifteen inches.

EARLY VARIETIES.

DANIEL O'ROURKE.—Early and productive, a favorite everywhere; grows to three feet.

CARTER'S FIRST CROP.—The earliest and most productive pea grown; two and a half feet.

KENTISH INVICTA.—A blue variety, rather earlier than "Daniel O'Rourke;" two feet.

LAXTON'S ALPHA.—An early wrinkled pea of superior quality; two and a half feet.

EARLY KENT.—An excellent, well known sort; grows about three feet.

MCLEAN'S BLUE PETER.—Dwarf, remarkably productive, early and good; robust.

TOM THUMB.—Very dwarf, hardy and productive; a much valued variety.

MCLEAN'S LITTLE GEM.—Green, wrinkled, marrow, delicious flavor; as dwarf as "Tom Thumb."

BISHOP'S NEW LONG POD.—Early and prolific, but not so dwarf as "Blue Peter;" grows to the height of eighteen to twenty-two inches.

LAXTON'S EARLY PROLIFIC.—Very productive, long pod, very hardy, a little later than the foregoing varieties; four feet.

MCLEAN'S PREMIER.—The largest, finest, and most productive wrinkled sort, about as early as "Laxton's Early Prolific;" three feet.

LATE VARIETIES.

CHAMPION OF ENGLAND.—The best of the late sorts, rich, sweet, large, and productive; four and a half feet.

VICTORIA MARROW.—Large, fine, and prolific; four feet.

BLUE IMPERIAL.—Very hardy and productive; three and a half feet.

DWARF WATERLOO MARROW.—Very dwarf, a splendid pea.

YORKSHIRE HERO.—Dwarf; large wrinkled variety, productive and excellent.

SUGAR.—Dwarf three feet, tall five feet, edible pods, peas good and sweet.

PEPPER—CAPSICUM.

This is a tropical plant, the seed-pods of which are used as pickles; it will not do well in this country unless started in a hot-bed. The directions given for the cultivation of the "egg plant" will answer for peppers. Transplant in rows two feet apart, and fifteen inches between the plants.

LARGE BELL.—Very large, over three inches in length, bright red color, flesh thick, mild flavor.

SWEET MOUNTAIN.—Similar to "Large Bell."

LONG RED.—Very productive, pungent, rather late.

POTATO.

This is, properly speaking, a field crop, a staple article of farm production, and of exportation. As its cultivation is well understood, and as it can hardly be called a garden vegetable, I need give no directions respecting it.

The varieties are almost numberless; but very few of them are of the first quality. Among those that are good, and that may be relied on as productive, I may mention "Early Blues," "Jackson Whites," "Calicoes,"

and "Pogies." The last mentioned potato is raised in Yarmouth County, and in the township of Clare, in the County of Digby, and I consider it superior to every other potato raised in America. From some cause, as yet unexplained, the cultivation of this variety has proved unsuccessful in other parts of the Province. Many new varieties of the potato have been introduced into the country during the past half dozen years; but not one has turned out to be any improvement on our old, well known sorts.

PUMPKIN.

Pumpkins are still grown by a few people, notwithstanding that for all ordinary purposes, and, indeed, in every particular, the squash is very far superior. As a garden vegetable it should have been banished long ago. It is profitable as a field crop for cattle food, because it is easily cultivated, and an immense weight may be grown per acre; but even in this respect I am inclined to think there are some varieties of mammoth squash that would be more profitable. Cultivation same as for squash.

RADISH.

Radishes require a very light, sandy, and highly enriched soil, so as to ensure rapid growth. Heavy, wet, or clayey soils are not suitable; they delay the growth of the plants, particularly in the early stages, and the

crops produced on such soils are much inferior in quality and quantity. If grown rapidly in a light, warm soil the radish will be crisp and tender; but if grown slowly it will be stringy, and disagreeable in flavor. I have seen splendid radishes grown in a mixture of almost pure sand and old stable manure.

The seed should be sown in drills about four inches apart, and lightly manured with about half an inch of soil, well pulverized; as the plants grow they should be thinned out to two inches apart. I think this plan preferable to the usual one of sowing broad-cast, as it gives the plants more light and air, without which they are apt to grow small and slender.

I usually sow radish seed in my beet beds after the following manner. The bed is marked out in drills six inches apart about the 1st of May. I sow radish seed in every alternate drill as soon as the bed is ready. On the 1st of June I sow beet seed in the intermediate rows. By the time the beets make their appearance above the ground my radishes are almost or quite fit to pull up. For an earlier crop I sow in the hot-bed about the first week in April. There are so many varieties that I think I cannot do better than to refer my readers to the annual catalogues published by the dealers. I will state, however, that I prefer the "Scarlet Olive Shaped," White ditto, and the Red and White Turnip varieties.

RHUBARB—PIE PLANT.

This well known perennial is extensively grown—I will not say cultivated—all over the Dominion. It seldom receives the cultivation and attention which is essential in order to mature it early in the season. The moment the frost is sufficiently out of the ground in the spring the earth about the roots of the plants should be deeply dug with a fork, and heavily manured. In general after it is planted it is left to take care of itself, and the plant is so hardy that it will sometimes grow to a very large size, even when closely embedded in weeds and grass; but under such circumstances the stalks are never so tender as when the plant is properly attended to. Rhubarb is best propagated by division of the roots. It should be planted in the spring three feet apart.

LONDON EARLY PROLIFIC.—The best rhubarb grown.

VICTORIA.—The largest known variety, but late.

LINNÆUS.—The sort commonly grown in this Province, very early and of good flavor, but not large.

SAGE.

The soil for all kinds of sweet herbs should be a rich, mellow loam, well manured early in the spring. About the 1st of May the bed should be dug over, and well raked. As the seeds are very small, the surface of the bed in which they are to be sown should be made as fine

as possible, and all the stones, even the very smallest of them, should be removed. Sow in drills six inches apart, and when the plants have grown sufficiently thin them out to six inches apart in the rows. When the ground is completely covered by their growth, cut out every alternate row, leaving the rows standing one foot apart. In a few weeks the same operation may be repeated, when the rows will stand two feet apart, in which condition they may remain until they begin to show the blossom, when the crop should be gathered. Herbs grown in this way are stronger and larger than if the seed be sown broad-cast, and the plants be not thinned out. Keep the bed clear of weeds; pull them up as soon as they make their appearance. The broad-leaf sage is the best.

SALSIFY, OR OYSTER PLANT.

This is by many persons considered a very delicious vegetable; but in my estimation, it is much inferior to the parsnip, which it in some manner resembles. Its culture is the same as that of carrots.

SHALLOTS.

Shallots are used in the green state in May and June as a substitute for onions. The method of cultivation is by dividing the bulbs, and planting them, in September, in rows one foot apart, the bulbs six inches apart. The

bed should be covered during the winter with coarse manure, straw, or spruce boughs. In the early spring it develops rapidly, and increases wonderfully, each bulb producing at least a dozen.

SPINACH.

For early spring use spinach should be sown in drills one foot apart, about the first week in September. At the end of November or, maybe, a week or two earlier, according to the season, the bed should be covered with straw or boughs to protect it from the severest weather; it will stand a great amount of frost, but I think it grows more rapidly in the spring if lightly covered during the winter. If required for summer use the seed should be sown about the middle of April. The plants should be thinned out to six inches apart. In six or eight weeks it comes to perfection. The soil must be well enriched and thoroughly drained.

ROUND SPINACH.—The variety most generally cultivated; it is very hardy, and I think will stand the winter quite as well as the "Prickly," which some gardeners consider best for autumn sowing.

PRICKLY.—A very hardy variety, but not so delicious as the "Round."

SQUASH.

This is one of our most delicious vegetables, and,

moreover, one that is easily grown. I generally start the seed in the hot-bed; but sometimes succeed admirably by planting in the open ground about the middle of May. Many persons put the seed in earlier than that, but I am convinced that doing so is a mistake. I have tried the experiment and never succeeded in having either earlier or larger squashes by it. If started in the hot-bed the seed should be put in about the 20th of April. When the plants fully develop the second rough leaf they should be transplanted to the open ground, and for a few nights should be covered over, for, although the danger of frosts may be past, the nights are often at that season too chilly for young plants accustomed to the warmth of a hot-bed. The soil best suited for cucumbers is the best for squash. The hills should be from six to eight feet apart, and each contain three plants.

When the plants send out runners or vines, be careful to cut off all side shoots from the main stems, by which method all the strength of the plant is forced in one direction, through the main fruit-bearing vine. I think three squashes are enough to be allowed to grow on each vine, and after they are formed I cut off the end of the vine and stop its growth. By these means I believe I can raise larger vegetables than if I allowed the vine and its side shoots to grow.

There are numerous varieties, of which the following are, perhaps, best and most profitable:—

EARLY BUSH, or PATTY-PAN.—The earliest, a good summer squash.

EARLY BUSH CROOKNECK.—A long, curved-neck variety, orange-yellow in color, considered the best early squash.

BOSTON MARROW.—A large and excellent variety, not quite so early as the preceding; color pale yellowish-buff, flesh thick and dry, and, perhaps, the best flavored of any.

VEGETABLE MARROW.—We seldom see a true "Vegetable Marrow" in our markets. It is an English squash of a greenish-yellow color, white flesh, rich and good flavor.

HUBBARD.—Without exception the best winter squash, large size, color blueish-green, changing to very dark green as it ripens; flesh fine grained, very dry and sweet.

MAMMOTH.—A very large, coarse variety.

YOKOHAMA.—A Japanese squash, color orange-salmon; in shape nearly round, deeply ribbed; flesh very dry, sweet, and of excellent flavor. Rather earlier than "Hubbard," but will not keep so well.

WINTER CROOKNECK.—A squash that will keep almost a year, of fine flavor, but not so dry as the two last mentioned.

SUMMER SAVORY.

For cultivation see "sage."

SWEET MARJORAM.

For cultivation see "sage."

THYME.

For cultivation see "sage."

TOMATO.

The tomato is a slow-ripening fruit, and therefore the sunniest spot in the garden should be allotted to it. Only the earliest varieties succeed well in this climate. The seed should be sown in a hot-bed about the 20th to 25th of March. When the plants are about two inches high transplant them five inches apart into another hot-bed, or in a vacant spot in the same in which the seed were sown. Transplant to the open ground not earlier than the 1st of June; if the season be backward the 10th will be better. The soil should be light and sandy. Plant in hills three feet apart, putting a shovelful of well-rotted manure in each hill. Bear in mind that *tomatoes will not ripen early on heavy soil in this climate.*

EARLY SMOOTH RED.—Early, round, smooth; an old favorite, one of the best.

HUBBARD'S CURLED LEAF.—The earliest, medium size, good quality.

GENERAL GRANT.—Very superior, large smooth ; in shape rather flat ; as early as “Smooth Red,” and ripens quickly.

KEYE'S EARLY PROLIFIC.—Early, medium size, very productive, and solid.

POWELL'S EARLY.—A good variety, deep crimson, very solid.

HATHAWAY'S EXCELSIOR.—Almost as early as “Early Smooth Red,” good size, very smooth skin, solid, excellent.

TURNIP.

Turnips are usually a field crop ; only a few varieties are grown in gardens for early use ; for this purpose the “Early Flat Dutch,” and the “Strap-leaved” varieties, both white and purple, are the best. A light, sandy soil, heavily manured, is best for early turnips, as for all *early* vegetables. Sow the seed as early as possible in drills fifteen inches apart, and then cut the plants to six inches apart. Seed for late turnips need not be sown until the 10th of June.





SMALL FRUITS.

GARDEN STRAWBERRY.

AS considerable attention has been given during the past three or four years to the cultivation of this fruit in Nova Scotia, and as it, when properly cultivated, affords considerable profit and pleasure, I will devote a few pages to its management.

The common wild Strawberry is generally admitted to be far superior in flavor to any of the cultivated sorts; but it is a very great pleasure to be able to go into one's own garden and "cull and hull" for one's own table, berries that are, perhaps, half as large as hen's eggs, and, although they may not be quite so rich, sweet, juicy, and delicious as the native fruit, many varieties are sufficiently so to be, probably, the most palatable of all garden fruits.

PROPAGATION.

The Strawberry may be propagated from seed, or by division of the roots, or by runners. I would not advise propagation from seed because, with the exception of

the Alpines, they are, like the seed of apples, seldom true to kind. Of one hundred plants raised from the seed of one sort of this fruit, perhaps there will not be more than a half dozen worth retaining.

Propagation by division of the roots is frequently unsuccessful, and therefore not to be relied on.

The best method is to obtain a few good plants of the sort desired and increase them from the runners. The way to ensure the rooting of the runners is to keep the surface of the soil in the bed very light and loose, so that the fine root fibres may be able to enter the ground easily. It is well to look over the bed occasionally and cover with a little earth, the roots of the runners that may be exposed, for unless they get a firm hold of the soil the plants will grow very slowly. When the young plants have become firmly rooted they should be separated from the parent plant by dividing the connecting runner or vine. If the plants be not sufficiently rooted before cold weather sets in in the autumn they must be protected until the spring,—in any case the plants are better for protection. If the soil be very rich the production of roots will be rapid, and vice versa. Frequent watering is of great assistance to young plants.

SOIL AND SITUATION.

A deep, rich, and sandy loam is, perhaps, the best soil for most kinds of strawberries; still a heavy soil,

well drained and manured, may be made to produce excellent crops. Whether light or heavy, however, the soil must be deep and thoroughly prepared in the first place for the plants, otherwise success is a matter of some uncertainty. For early fruit a southern exposure is required. Plant the earliest varieties in a warm, sunny situation, and the late ones in a northern one, and your fruit season will be materially extended.

MANURES.

Old and thoroughly rotted stable manure is at least equal to anything as a fertilizer for strawberries. Lime should not be used, excepting occasionally in very small quantities. Some cultivators assert that it kills the plants. A compost of old stable manure and leaves from the woods, or peat, in equal proportions is an excellent fertilizer; they should be well mixed and let remain in a heap for three or four months, during which time the heap should be opened out and turned over about once in every three weeks, and then be piled up again snugly and compactly. This compost is best in very sandy soils. If the soil be heavy, fresh manure may be used; but its frequent application is apt to burn the plants. Pure swamp muck, if mixed with a small quantity of ashes or lime to assist decomposition, will, in six months, become a very good manure. *Never mix ashes or lime with stable manure.*

PREPARATION OF PLANTS.

Before setting out plants in the Spring all the decayed leaves should be removed, and all decayed or broken roots must be cut off; the sound ones may be shortened about half, this operation should be performed with a keen knife so as to leave a clean, smooth cut. A new set of roots will branch out from the ends of those shortened, which will materially aid the plant in drawing sustenance and moisture from the soil. All the largest leaves should be removed from the plants to correspond with the pruning of the roots. If plants are transplanted embedded in a ball of the earth in which they were grown, there will be no necessity for reducing the number of leaves. If the plants have come from a distance and have been out of the ground some time, it will be advisable to "puddle" the roots before planting; this is done in the following manner, mix some soil in a tub or bucket with water until it is of the consistency of thin mortar; into this dip the roots, giving them a thin coating of the mixture, which has the effect of keeping the roots moist for a day or two, and thus preventing wilting of the plants. It is a good plan to put the roots in clean water for a couple of hours before puddling.

PLANTING AND CULTIVATION.

The strawberry should be very carefully planted, it

wont do to make a hole in the ground with a stick and thrust the roots therein after the manner of planting cabbages ; the roots should be nicely and evenly spread out, else the plants will not do well. With a garden trowel a shallow hole should be made, large enough to admit the roots spread out ; the plants should then be set just deep enough to allow the roots to be covered ; but not the crown of the plant. If the crown be covered it is very apt to decay ; mix a little fine, rich compost with the soil that is placed immediately around the plants.

Select dull weather, if possible, for transplanting, otherwise the plants must be shaded from the sun for a few days, and kept moist, but not soaked with water. After they are firmly rooted water wont hurt them, on the contrary if carefully applied at first it will materially advance their growth. Liquid manure is also of great benefit.

The plants should be set out in rows two feet apart, and two feet between the plants. The beds must be frequently hoed to keep down the weeds. All the runners that are not wanted to take root should be trimmed off. After the plant is formed, mulch the beds with a light coating of short, soft straw, or fine meadow grass or hay ; this will keep the ground moist and prevent the fruit from getting muddy during heavy showers.

After two or, at most, three crops have been taken from a bed of strawberries, it is better to spade up the

bed and plant some other crop for a couple of seasons—a root crop is best. Good crops must not be expected from old plants, and, besides, it is not so much trouble to plant a new bed as to clean the weeds from an old one. Set out young plants in a new bed for a couple of years, and then return to the old one after giving it a thorough preparation.

If a late crop is wanted do not let the first fruit mature; remove the blossoms that appear in the spring, and in a few weeks others will take their places, and an excellent crop of berries will generally be produced by the 1st of September. The "Boston Pine" is recommended as best for this treatment. To produce fruit of extra size for show, only a few berries should be allowed to mature on each plant; remove about two-thirds of the fruit stems, retaining only the strongest and best, and manure the ground liberally.

PROTECTION.

In New Brunswick, Quebec, and a large portion of Ontario, where the ground is covered with snow during the entire winter, no protection other than that afforded by the snow, is necessary; but in Nova Scotia where the winter is usually a succession of alternate freezing and thawing, strawberry plants should be protected. Frost will not hurt the plants, but it is the rapid and frequent transition from heat to cold and from cold to

heat that does the mischief. If plants are frozen in the autumn and kept so until spring they are not injured ; it is therefore better, after the ground is frozen, to cover the beds with straw, leaves, or spruce boughs, to the depth of three inches ; this will prevent the plants from being subject to, and affected by every change of weather. It has frequently been remarked that we have a greater abundance of wild strawberries in our markets in those summers that follow a hard winter with plenty of snow, than in those succeeding a very mild one, which I think is sufficient proof that the protection afforded by the covering of snow prevents injury to the vines.

INSECTS.

Insects are sometimes very destructive to strawberry vines, and that which is the most so is the white grub. This insect is fully an inch and a half in length, and nearly a half an inch thick ; in color it is a sort of dirty white, with a brown head. Snails are also very destructive, but not generally to the plants, it is the ripe fruit that these robbers turn their attention to ; they are remarkably fond of strawberries, and will devour quantities of them without "cream and sugar." For the methods usually employed to get rid of the annoyance of such pests see chapter on "Insects," page 25.

VARIETIES.

The "Alpine Red, Monthly," is one of the best

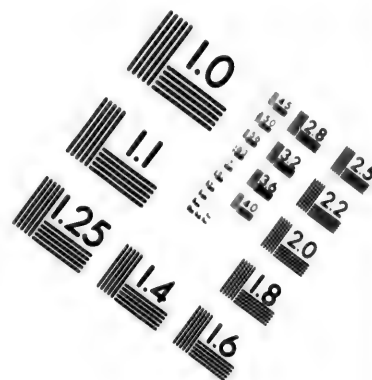
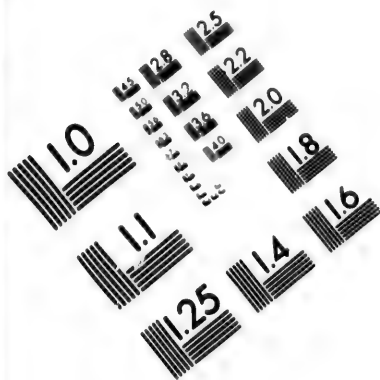
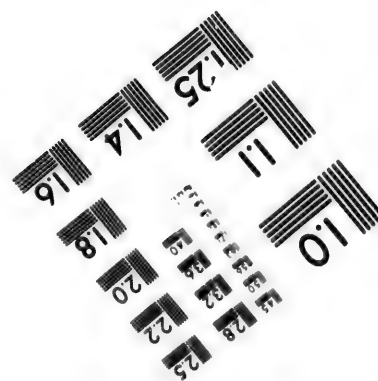
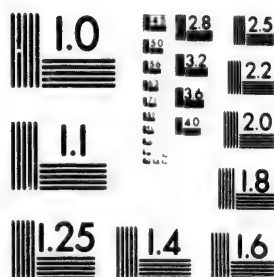


IMAGE EVALUATION TEST TARGET (MT-3)



28
25
22
20

10

strawberries for garden cultivation, as it continues to produce fruit during the whole summer. The berries are of a conical shape, medium size, and good flavor. The "Alpine White, Monthly," is of the same description except in color, which is a creamy white. The soil must be very rich for both. It is best to renew beds of Alpines with seedling plants, they do better than the runners from old plants. The seeds of this variety may be purchased of nearly all seedsmen in the United States. In addition to the Alpines I would recommend the following sorts for general cultivation:—

"Agriculturist," "Boston Pine," "Brooklyn Scarlet," "Lady Finger," "French's Seedling," "New Jersey Scarlet," "Wilson's Albany," "Sabreur," and "Vicomtesse Hericart de Theury."

GARDEN RASPBERRY.

This is a delicious fruit, and by many persons considered superior to the strawberry. It is very productive, and its cultivation simple, and not expensive.

PROPAGATION AND CULTIVATION.

If grown from seed the raspberry plant will not bear until the third year, and then not very abundantly; this manner of propagation is usually only resorted to in order to obtain new varieties. The best, simplest and

surest method is by root-cuttings, as practiced in New York and New Jersey, and indeed, now in all the New-England and Middle States.

In the autumn when the plants have ceased to grow, they are taken up, and the roots are cut into pieces of from an inch to three inches in length; a box is then prepared by boring holes in the bottom to allow sufficient drainage, some straw is then placed in the box to cover the holes and prevent the soil from falling through, soil is then put in to the depth of two inches; on this is placed a layer of the pieces of root, then a layer of soil, and so on until the box is filled. The box is then buried in a dry, well drained spot in the garden, and banked up and covered so deeply with earth that the frost can have no effect on its contents. The bank is sometimes covered with boards to protect it completely from the rain. Early in the spring, as soon as the ground is sufficiently dry and free from frost, the roots are planted in good, rich soil about three or four inches apart, in drills, and covered two inches deep with soil if it be heavy loam, or four inches if the soil be light and sandy. The drills are from eighteen inches to two feet apart. If the season be dry and the soil porous, the entire surface of the bed is mulched with straw or leaves for a few weeks. It is considered that raspberry canes grown in this manner are better, stronger, and more productive than those grown from suckers. The root-cuttings, if planted in rich soil, and kept free from weeds and grass, will

sometimes produce canes nearly three feet high the first season. Plants may be taken up in the spring and the roots cut as above described, and planted immediately where they are intended to remain ; but the plants will not be so large or so strong at the end of the first season as those grown from autumn cuttings.

In the spring of the second year the plants are taken up and planted in hills about four feet apart each way. Two plants are generally set in a hill, six inches apart, and not any deeper than they were before removal. At the time of planting, the canes are cut down to the surface of the soil, which process gives the roots the necessary strength to produce new suckers and mature the canes required for the next year's fruiting.

The soil most suitable for the Antwerp varieties of raspberry is a heavy, deep, rich, moist loam ; the black raspberry prefers a light soil. Thorough preparation and manuring of the soil, whether light or heavy, before planting, is important and must not be neglected.

In hoeing to cut up the weeds, care must be taken not to bank up the plants, but to keep the ground as level as possible. Not more than two shoots should be allowed to grow the first season from each root or stool ; the second year six, or even eight, will not be too many.

Raspberry canes to do well require to be supported in some manner, they must be either tied to stakes, or have some other support which will keep them from

bending to the ground or breaking. The old canes should be cut close to the ground soon after the fruit has been gathered; some persons perform this operation in the spring, but the plan is not so beneficial to the plants. The bearing canes should be shortened in the spring, as also all lateral shoots, at least one half. Plants treated after this manner produce much larger fruit than if the canes be allowed to grow without pruning, and, although there may not be so many berries, there will be a greater weight of fruit.

All the varieties of raspberry are better for protection in winter, even our common wild ones that are generally so hardy are sometimes winter killed. The best and cheapest method is to lay down the canes lengthwise in the rows, and cover them with earth; but it should not be done until cold weather sets in, otherwise the canes will decay. In the spring the canes may be raised with a fork, gently, and the soil carefully shaken off. When the canes are raised to the perpendicular they should be immediately staked up, all the dead and broken ones must be cut off, and the sound canes shortened. The soil about the roots may then be carefully loosened with a fork, and manured; after which no further attention is necessary until the weeds begin to make their appearance.

There are innumerable varieties of this fruit; but only the following sorts, being some of the best and most prolific, are recommended:—

PHILADELPHIA.—A purple cane variety. Fruit large, dark red, neither very rich nor very juicy, but the plant is very hardy and productive, and does well in sandy soil. A good market sort.

NEW RED ANTWERP.—Fruit large, firm, and sweet. The New York market variety.

BELLE DE FONTENAY (*Victoria*).—Very large, conical, deep crimson, slightly acid but good, very hardy and productive.

CLARKE.—Large, light crimson, very sweet and rich, remarkably productive and hardy.

DOWNING.—Large, juicy, sweet and rich, color bright crimson.

KNEVET'S GIANT.—Very large, juicy and good, color light crimson, very productive.

BRINCKLE'S ORANGE.—Large, sweet, rich and delicious, orange color, productive, one of the best.

SOUCHETTI.—Large, conical, pale yellow, firm, juicy, sweet, and very good and productive.

MIAMI BLACK CAP.—Very large, nearly black, sweet, juicy, good, hardy and productive.

WOODSIDE.—Very large, black, sweet, melting and excellent. Produces a second crop in autumn.

GARDEN BLACKBERRY.

This fruit is but seldom cultivated in Nova Scotia, as it is quite abundant in its wild state; it may, however,


be greatly improved by cultivation, of which it is well worthy. The management of the blackberry is precisely similar to that of the raspberry ; but it does not require so rich or so moist a soil. The driest spot in the garden is best. Set the plants from 6 to 8 feet apart. The following are recommended—*Kittatinny*, *Wilson's Early Dorchester*, and *Cape May*.





CONCLUDING REMARKS.

WITH the exception of the vegetables raised in the neighborhood of Halifax for the supply of the city market, there is, in most parts of the Province, scarcely any other vegetable raised for the table but the potato. In the County of Lunenburg this is supplemented with the cabbage; but, as a general rule, throughout the Province our farmers rarely think of raising the finer and more delicate and delicious vegetables. Health is best maintained by a judicious variation of food, both animal and vegetable, and although a man may live and be, apparently, healthy and robust for a number of years on a continuous diet of potatoes, in the end his constitution is very apt to break up suddenly. Our farming population have certainly a variety of food; but it is of a class well known to be highly injurious to health. I will venture to assert that among them there is a greater weight of pies, cakes, hot rolls, short-bread, doughnuts, and preserves eaten daily than of good, wholesome vegetables from the field or garden.



Nine-tenths of all the ills that flesh is heir to are caused by a disordered stomach, induced by continually taxing and overstraining its powers with an indigestible and unwholesome diet. It is thought by most persons that a habit of overloading is the chief cause of injury to the stomach; but it is in reality not so much the quantity as the quality of the food we eat that does the mischief. In some parts of Ireland the peasantry live almost entirely on vegetables, chiefly potatoes, and it is astonishing what an enormous quantity is usually consumed by each individual; it is not uncommon there for a man to eat from 4 to 6 lbs. of potatoes at a single meal, and, apparently, without any immediate ill effect. If instead of potatoes, half the quantity of hot bread and pastry were eaten at a time, the stomach would not stand it much more than a year. Dyspepsia and all its concomitant evils would assuredly be the result. The general health of our population would be vastly improved by the daily consumption of more wholesome vegetables and less of the indigestible pastry and sweatmeats that are generally eaten.

Every farm house should have near it a kitchen garden in which may be grown a variety of vegetables, such as beets, carrots, parsnips, tomatoes, onions, cauliflower, radishes, lettuce, spinach, beans, peas, &c., affording the variety which is not only gratifying to the palate, but really more essential to a healthy state of the body than is generally supposed. Only a very

small piece of land is necessary for a kitchen garden. Fifty feet square, if properly cultivated, would be amply sufficient to supply a large family with all kinds of vegetables, excepting potatoes, which may be, and are almost invariably raised in the field. A well cultivated garden, even in front of a house in the country, although, perhaps, not quite so ornamental as flowers or shrubbery, would present a much more handsome appearance than briars, thistles and weeds, with which, I am sorry to say, too many of our farm houses are surrounded, and the author hopes that the circulation of this little book may be the means of inducing many of our farmers to pay more attention to vegetable gardening than they have hitherto deemed necessary. His own experience warrants him in assuring them that they may derive a very large amount of pleasure and profit from the cultivation of a very small piece of ground.



File-Text